

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-18. (Canceled)

19. (Currently Amended) A surface emitting semiconductor laser comprising:

a substrate;

a first mirror formed over the substrate, the first mirror including semiconductor layers of first conductivity type;

a second mirror formed over the substrate, the second mirror including semiconductor layers of a second conductivity type;

an active region disposed between the first and second mirrors;

a current confining layer disposed between the first and second mirrors;

a compound semiconductor layer formed over the second mirror;

an electrode formed on the compound semiconductor layer; and

a protective film that covers the compound semiconductor layer and partially covers the electrode,

wherein the electrode formed by a lift-off process utilizes an opening-pattern which is formed by plasma ashing, and surface roughness of the compound semiconductor layer after formation of the electrode is not more than 5 nm.

20. (Canceled)

21. (Currently Amended) The surface emitting semiconductor laser as claimed in claim 19, wherein the compound semiconductor layer includes a GaAs layer of the second conductivity type, and the second mirror underlying the GaAs layer includes an AlGaAs layer.

22. (Canceled)

23. (Previously Presented) The surface emitting semiconductor laser as claimed in claim 19, wherein the electrode is formed in a ring-shaped pattern on the compound semiconductor layer and wherein an inner diameter of the ring-shaped pattern defines an emission window for laser light.

24. (Currently Amended) The surface emitting semiconductor laser as claimed in claim 19, wherein the electrode is defined through the steps of:

forming a first organic layer on the compound semiconductor layer;

forming a second layer on the first organic layer, the second layer being resistant to plasma ashing;

forming a pattern including a first aperture in the second layer;

forming a second aperture in the first organic layer by plasma ashing of the first organic layer using a mask pattern including the first aperture to expose the compound semiconductor layer in the second aperture; and

depositing a conductive layer over a region including the compound semiconductor layer exposed in the second aperture and the second layer;

wherein forming the pattern in the second layer includes a lift-off process, and

surface roughness of the compound semiconductor layer after formation of the electrode is

not more than 5 nm.

25. (Previously Presented) The surface emitting semiconductor laser as claimed in claim 23, wherein the protective film covers the emission window.

26. (Previously Presented) The surface emitting semiconductor laser as claimed in claim 19, further comprising an insulation film, wherein the compound semiconductor layer is totally covered with the electrode, the protective film and the insulation film.